UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,303	12/26/2000	Tsutomu Sasaki	001715	2061

23850 7590 01/07/2004

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER	
ELLIS, KEVIN L	
ART UNIT	**PAPER NUMBER**
2188	

DATE MAILED: 01/07/2004

8/13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/745,303	SASAKI ET AL.	
	Examiner	Art Unit	
	Kevin L. Ellis	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

1. Claims 1-4 are presented for examination. This Office Action is in response to the response filed 8/27/03.

Claim Rejections – 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Robinson et al., U.S. Patent 5,428,579, in view of Kawasaki et al., U.S. Patent 6,332,196.

A) As to claims 1, 2, and 4, Robinson et al. discloses the invention substantially as claimed. There is a memory card that can operate under two current consumption modes, an active and a standby mode (see Col 2 Lines 6-12 and Line 50 to Col 3 Line 49). The memory card operates in the active mode when it is being read or written to and in the standby mode when no operation is occurring to the memory card. The standby mode operates with a non-zero current consumption for a second current value less than the first current value (see Col 9 Lines 3-54). This results in the same power savings as the present invention. However, Robinson et al. does not disclose the buffer memory that data is read into and that when the amount of data stored in the memory falls below a threshold the memory card is then operated in the active mode.

Kawasaki et al. teaches a buffer that is utilized similarly to the claimed buffer. The buffer of Kawasaki et al. stores data from a storage device and when the buffer contains sufficient data the storage device is operated in a lower power mode. When the amount of data falls below a threshold the storage device is operated in an active mode and data is read into the buffer (see Abstract and Col 3 Lines 5-45). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Kawasaki et al. in the system of Robinson et al. and provide a buffer between the memory card and the requestor of the data. The operation of the memory card would operate in a manner similar to that of the storage device taught by Kawasaki et al. When there is sufficient data in the buffer the memory card can be operated in a reduced power state, when the amount falls below a threshold the memory card would be operated in the powered up state (active mode) and data read into the buffer. This arrangement would provide power savings because the amount of time the memory card operated in a powered on state (active mode) would be decreased.

B) As to claim 3, Robinson et al. teaches setting the memory card in the standby mode when there is no memory access within a predetermined period of time (see Col 16 Lines 16-24).

Response to Arguments

4. Applicant's arguments filed 8/27/03 have been fully considered but they are not persuasive. The Robinson et al. reference teaches operating a memory card in both an active and a standby mode in order to conserve power. The Kawasaki et al. references teaches utilizing a

buffer memory between a storage device and a requestor so that the storage device can be placed into a reduced power state (see Col 3 Lines 11-13 and 19-21 of Kawasaki et al.) when data is being read out of the buffer. Utilizing the teachings of Kawasaki et al. in the system of Robinson et al. would mean providing a buffer for the memory card of Robinson et al. wherein when data is stored in the buffer the memory card could then be placed into a reduced power state. The reduced power state of the memory card of Robinson et al. is the standby mode, the same as the reduced power state of the present invention. Thus the combination of Robinson et al. in view of Kawasaki et al. teaches the claimed invention.

As for applicants remarks regarding the two different bit rates, these rates are only different because the data being read out of the buffer memory is being read out intermittantly. As taught by the specification, applicants memory is capable of providing data at 8 Mbps, the data being read out of the buffer is music data that needs to be accessed at 128 Kbps (see pages 6-7 of the specification). Obviously if data is read from a buffer for a storage device at a much slower rate then the data can be read from the storage device then the bit rates will be different.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin L. Ellis whose telephone number is 703-305-9659. The examiner can normally be reached on weekdays from 6:00AM-2:30PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 703-306-2903. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kevin L. Ellis
Primary Examiner
January 6, 2004